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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,379	04/06/2005	Guofu Zhou	NL 021000	4907

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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BRIARCLIFF MANOR, NY 10510

EXAMINER

CHOWDHURY, AFROZA Y

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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10/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/530,379

Applicant(s)

ZHOU ET AL.

Examiner

Afroza Y. Chowdhury

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/16/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment received on **August 16, 2007** has been entered. Claims 1-19 are currently pending. Claims 6-19 are newly added. Applicant's newly added claims and arguments are addressed herein below.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "**controller**" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

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Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 13-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification as originally filed does not provide support for the recitation of claim 13, "a controller that is configure to recite that picture... and determine inter-picture...". The specification as first filed doesn't teach one skill in the art how to make or use "a controller that is configure to receive first picture... and determine inter-picture...".

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 7 and 14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 7 and 14, "the inter-picture values are each subsequently equal to one of a set of extreme image values" is not clear. How it is possible for inter-picture to have the same value as the extreme image values?

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by **Webber** (US Pub. 2002/0180687).

As to claim 1, Webber discloses an electrophoretic display panel for displaying a picture and a subsequent picture comprising:

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a first substrate (fig. 1A(114)) and a second opposed substrate (fig. 1A, Note: It is inherent for an electrophoretic display to have two substrates opposed to each other);

an electrophoretic medium between the substrates (fig. 1A(102), page 3, [0036]);

a plurality of pixels (page 3, [0036], Note: It is inherent for the display to have a plurality of pixels);

a first electrode (fig. 1A(110), page 3, [0036], front electrode) and a second electrode (fig. 1A(112), page 3, [0036], rear electrode) associated with each pixel for receiving a potential difference; and

a driver (page 4, [0039]);

the electrophoretic medium (fig. 1A, 1B, page 3, [0036]) being able to provide each pixel with an appearance, being one of a first (fig. 9, page 4, [0039], white) and a second (fig. 9, page 4, [0039], black) extreme appearance and intermediate appearances (fig. 9, page 9, [0089], gray) between the first and the second extreme appearance, and

the driver (page 4, [0039]) being able to control for each pixel the potential difference to a picture value that provides the pixels with a respective picture appearance being one of the appearances (fig. 9, page 4, [0039] – [0040], white, gray, black) in dependence of the picture to be displayed,

subsequently to an inter-picture value (page 6, [0052]) that provides the pixels with a respective inter-picture appearance (fig. 9, page 4, [0040], gray),

and subsequently to a subsequent picture value (page 6, [0052]) that provides the pixels with a respective subsequent picture appearance being one of the

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appearances (fig. 9, page 4, [0039] – [0040], white, gray, black) in dependence of the subsequent picture to be displayed,

wherein the driver (page 4, [0039]) is able to control for each pixel an estimate potential difference as an inter-picture value (page 6, [0052]) that provides the pixels with a respective estimate picture appearance as the inter-picture appearance (fig. 9, page 4, [0040], gray).

As to claim 2, Webber teaches a display panel wherein the respective estimate picture appearance is substantially equal to one of the extreme appearances associated with the subsequent picture appearance (fig. 9, page 4, [0039] – [0040], white, gray, black).

As to claim 3, Webber teaches a display panel wherein the estimate picture appearance of each pixel is substantially equal to: the first extreme appearance (fig. 9, page 4, [0039], white) if the respective subsequent picture appearance is optically closer to the first extreme appearance than to the second extreme appearance (fig. 9, page 4, [0039], black), and the second extreme appearance otherwise.

As to claim 4, Webber discloses a display panel wherein the driver (page 4, [0039]) is further able to control for each pixel the potential difference for displaying the subsequent picture to have a sequence of preset values (page 6, [0052]),

the preset values in the sequence alternating in sign and having an absolute value in the order of the subsequent picture value (page 6, [0052]),

and to apply each preset value in the sequence for a duration being at least a factor of two smaller than a largest duration of the durations during which the subsequent picture values will be applied, before having the subsequent picture value (page 6, [0052]).

As to claim 5, Webber teaches a display panel wherein the sequence of preset values has a last preset value with equal sign as a sign of the subsequent picture value (page 4, [0039]).

As to claims 6 and 13, a method of driving an electrostatic display panel, comprising:

receiving first picture values of a first picture and second picture values of a subsequent picture (page 4, [0039]),

determining inter-picture values based on at least the second picture values (page 4, [0040]), and

applying a sequence of potential differences across electrodes of pixels of the electrophoretic display, the sequence including:

potential differences corresponding to the first picture values.

potential differences corresponding to the inter-picture values, and

potential differences corresponding to the second picture values (page 4, [0039] – [0040]).

It is inherent for a display device to have a driver that controls each pixel to a picture value that provides the pixel with a respective picture appearance.

As to claims 7 and 14, a method wherein the inter-picture values are each subsequently equal to one of a set of extreme image values (fig. 9, page 4, [0039] – [0040]).

As to claims 8 and 15, a method wherein the set of extreme image values includes black and white (page 9, [0089]).

As to claims 9 and 16, a method wherein determining each inter-picture value includes selecting the extreme image value that is closest in value to a corresponding second picture value (fig. 9, page 4, [0039] – [0040]).

As to claims 10 and 17, a method including applying a sequence of preset values of alternating signs (page 4, [0052]).

As to claims 11 and 18, a method wherein a duration of each preset value is at least a factor of two smaller than a largest duration during which the second picture values will be applied (page 6, [0052]).

As to claims 12 and 19, a method wherein the sign of each last applied preset value is equal to a sign of the corresponding second picture value (page 4, [0039]).

Response to Arguments

9. Applicant's arguments filed on **August 16, 2007** have been fully considered but they are not persuasive.

The Applicants argue "Webber fails to teach a driver that controls each pixel to a picture value that provides the pixel with a respective picture appearance being one of the appearances in dependence of the picture to be displayed, subsequently to an inter-picture value that provides the pixel with a respective inter-picture appearance, and subsequently to a subsequent picture value that provides the pixel with a respective subsequent picture appearance being one of the appearances in dependence of the subsequent picture to be displayed, wherein the driver is able to provide each pixel an estimate potential difference as the inter-picture value that provides the pixels with a respective estimate picture appearance as the inter-picture appearance." The Examiner respectfully disagrees. It is inherent for a display device to have a driver that controls each pixel to a picture value that provides the pixel with a respective picture appearance.

The Applicants states that Webber does not teach estimating potential differences that are to be applied to control the appearance of the display between the pictures that are to be displayed. The Examiner respectfully disagrees. In order to have

a white, gray, and dark state (see fig. 9), there has to be some potential difference between the picture values. Otherwise all of them will have same colors.

The Applicants also argue that Webber fails to teach controlling each picture to an inter-picture value that provides the pixel with a respective inter-picture appearance. The Examiner respectfully disagrees. Webber teaches gray state (fig. 9, page 4, [0040]) which is an inter-picture value black and white.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

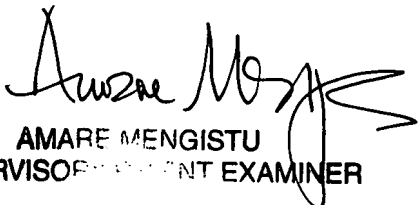
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afroza Y. Chowdhury whose telephone number is 571-270-1543. The examiner can normally be reached on 7:30-5:00 EST, 5/4/9.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC
9/24/2007


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